



General

Guideline Title

Screening for cognitive impairment in older adults: U.S. Preventive Services Task Force recommendation statement.

Bibliographic Source(s)

U.S. Preventive Services Task Force. Screening for cognitive impairment in older adults: U.S. Preventive Services Task Force recommendation statement. Ann Intern Med. 2014 Jun 3;160(11):791-7. [24 references] [PubMed](#)

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: U.S. Preventive Services Task Force. Screening for dementia: recommendations and rationale. Ann Intern Med 2003;138(11):925-6.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Recommendations

Major Recommendations

The U.S. Preventive Services Task Force (USPSTF) grades its recommendations (A, B, C, D, or I) and identifies the levels of certainty regarding net benefit (High, Moderate, and Low). The definitions of these grades can be found at the end of the "Major Recommendations" field.

Summary of Recommendation and Evidence

The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for cognitive impairment. (I statement)

Clinical Considerations

Patient Population Under Consideration

This recommendation applies to universal screening with formal screening instruments in community-dwelling adults in the general primary care population who are older than age 65 years and have no signs or symptoms of cognitive impairment. Early detection and diagnosis of dementia through the assessment of patient-, family-, or physician-recognized signs and symptoms, some of which may be subtle, are not considered screening and are not the focus of this recommendation.

Suggestions for Practice Regarding the I Statement

Potential Preventable Burden

The prevalence of dementia in the United States is 5% in persons aged 71 to 79 years, increasing to 24% in those aged 80 to 89 years and 37% in those older than 90 years. The prevalence of mild cognitive impairment (MCI) in older adults is difficult to estimate because of differences in the definition of MCI and methods used in studies; estimates range widely, from 3% to 42% in adults age 65 years or older. Approximately 40% to 50% of older adults report subjective memory symptoms. The rate of progression of MCI to dementia is uncertain.

Although the evidence on routine screening is insufficient, there may be important reasons to identify early cognitive impairment. In addition to its potential to help patients make diagnostic and treatment decisions, including treatment of reversible causes of dementia and management of comorbid conditions, early recognition of cognitive impairment allows clinicians to anticipate problems patients may have in understanding and adhering to recommended therapy. This information may also be useful to patients and their caregivers and family members in anticipating and planning for future problems that may develop as a result of progression of cognitive impairment. Although the overall evidence on routine screening is insufficient, clinicians should remain alert to early signs or symptoms of cognitive impairment (for example, problems with memory or language) and evaluate as appropriate. The National Institute on Aging has information on the detection and management of cognitive impairment for patients and clinicians, including a database of tools to detect cognitive impairment (available at www.nia.nih.gov).

Potential Harms

Information about the harms of screening, including labeling and the effect of false-positive results, is limited. Acetylcholinesterase inhibitors (AChEIs) are associated with adverse effects, some of which are serious, including central nervous system disturbances and bradycardia. Gastrointestinal symptoms are also common. Information about the harms of nonpharmacologic interventions is limited, but these harms are assumed to be small. Exercise interventions are not associated with serious adverse effects.

Costs

The cost of screening varies depending on the screening instrument. Some instruments take little time and are free to the public. The most widely studied instrument, the Mini-Mental State Examination (MMSE), takes approximately 10 minutes to administer and is not free. Total health, long-term, and hospice care costs for dementia in the United States were an estimated \$183 billion in 2011. Medicare and Medicaid pay approximately 40% to 70% of these costs, representing \$130 billion. These costs do not include the estimated \$202 billion in uncompensated care that informal caregivers provide annually.

Current Practice

At present, diagnosis of dementia primarily occurs as a result of a clinician's suspicion of patient symptoms or caregiver concerns and not as a result of routine formal screening. As much as 29% to 76% of patients with dementia or probable dementia in the primary care setting are undiagnosed. In 2011, Medicare added detection of cognitive impairment to the new annual wellness visit benefit, and the Alzheimer's Association has published guidance on how to implement this benefit.

Assessment of Risk

Increasing age is the strongest known risk factor for cognitive impairment. The $\epsilon 4$ allele of the apolipoprotein E gene is a reported risk factor for Alzheimer disease. Other reported risk factors for cognitive impairment include cardiovascular risk factors (such as diabetes, tobacco use, hypercholesterolemia, hypertension, and metabolic syndrome), head trauma, learning disabilities (such as Down syndrome), depression, alcohol abuse, physical frailty, low education level, low social support, and having never been married.

Several dietary and lifestyle factors have been associated with decreased risk for dementia; these factors have weaker supporting evidence than those previously mentioned. Adequate folic acid intake, low saturated fat intake, longer-chain ω -3 fatty acids, high fruit and vegetable intake, Mediterranean diet, moderate alcohol intake, educational attainment, cognitive engagement, and participation in physical activity are all associated with decreased risk for dementia.

Screening Tests

Screening tests for cognitive impairment in the clinical setting generally include asking patients to perform a series of tasks that assess at least 1 cognitive domain (memory, attention, language, and visuospatial or executive functioning). Blood tests and radiology examinations are not currently used as screening tests but are often used after a positive screening result to confirm the diagnosis of dementia and determine its subtype. Although optimum sensitivity and specificity of the MMSE probably vary depending on the patient's age and education level, a large body of literature suggests that a general cut point of 23/24 or 24/25 (score considered "positive"/"negative") is appropriate for most primary care populations.

Other instruments with more limited evidence include the Clock Drawing Test, Mini-Cog Test, Memory Impairment Screen, Abbreviated Mental

Test, Short Portable Mental Status Questionnaire, Free and Cued Selective Reminding Test, 7-Minute Screen, Telephone Interview for Cognitive Status, and Informant Questionnaire on Cognitive Decline in the Elderly. Each of these tests has reasonable performance in some studies, but estimates of sensitivity and specificity vary, and the optimum diagnostic threshold or cut point for many of these instruments is unclear. For information on all instruments reviewed by the USPSTF, including the Montreal Cognitive Screening Assessment, the St. Louis University Mental Status examination, and other instruments with 2 or fewer studies, see the full evidence report (available from the [USPSTF Web site](#) [see also the "Availability of Companion Documents" field]).

Treatment and Interventions

Treatment of cognitive impairment focuses on several signs and symptoms, including quality of life, cognition, mood, and behavioral impairments.

Several pharmacologic and nonpharmacologic interventions aim to prevent, slow, or reverse cognitive impairment in older adults or improve caregiver burden and depression. Pharmacologic treatments approved by the U.S. Food and Drug Administration include AChEIs and memantine. Nonpharmacologic interventions include cognitive training, lifestyle behavioral interventions, exercise, educational interventions, and multidisciplinary care interventions. Several interventions focus on the caregiver and aim to improve caregiver morbidity and delay institutionalization of persons with dementia.

Other Approaches to Prevention

The USPSTF has published recommendations related to several of the risk factors for cognitive impairment, including counseling on tobacco cessation, alcohol use, healthful diet, physical activity, and falls prevention and screening for high cholesterol, hypertension, and depression (available at www.uspreventiveservicestaskforce.org).

Definitions:

What the USPSTF Grades Mean and Suggestions for Practice

Grade	Grade Definitions	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer/provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer/provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer/provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be measured.	Read the "Clinical Considerations" section of the USPSTF Recommendation Statement (see the "Major Recommendations" field). If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

USPSTF Levels of Certainty Regarding Net Benefit

Definition: The USPSTF defines *certainty* as "likelihood that the USPSTF assessment of the net benefit of a preventive service is correct." The net benefit is defined as benefit minus harm of the preventive service as implemented in a general, primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

Level of Certainty	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	<p>The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by factors such as:</p> <ul style="list-style-type: none"> • The number, size, or quality of individual studies • Inconsistency of findings across individual studies • Limited generalizability of findings to routine primary care practice • Lack of coherence in the chain of evidence <p>As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.</p>
Low	<p>The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of:</p> <ul style="list-style-type: none"> • The limited number or size of studies • Important flaws in study design or methods • Inconsistency of findings across individual studies • Gaps in the chain of evidence • Findings not generalizable to routine primary care practice • A lack of information on important health outcomes <p>More information may allow an estimation of effects on health outcomes.</p>

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Cognitive impairment

Guideline Category

Prevention

Screening

Clinical Specialty

Family Practice

Geriatrics

Internal Medicine

Preventive Medicine

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Nurses

Physician Assistants

Physicians

Guideline Objective(s)

- To update the 2003 U.S. Preventive Services Task Force (USPSTF) recommendations on screening for dementia
- To summarize the USPSTF recommendations on screening for cognitive impairment in older adults

Target Population

Community-dwelling adults in the general primary care population who are older than 65 years and have no signs or symptoms of cognitive impairment

Interventions and Practices Considered

1. Screening for cognitive impairment using validated instruments and self or caregiver reporting
2. Early treatment, including acetylcholinesterase inhibitors (AChEIs)

Major Outcomes Considered

- Key Question 1: Does screening for cognitive impairment in community-dwelling older adults in primary care–relevant settings improve decision-making, patient, family or caregiver, or societal outcomes?
- Key Question 2: What is the test performance of screening instruments to detect cognitive impairment in elderly, community-dwelling primary care patients?
- Key Question 3: What are the harms of screening for cognitive impairment?
- Key Question 4: Do interventions for mild cognitive impairment (MCI) or mild to moderate dementia in older adults improve decision-making, patient, family or caregiver, or societal outcomes?
- Key Question 5: What are the harms of interventions for cognitive impairment?

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Note from the National Guideline Clearinghouse (NGC): A systematic evidence review was prepared by the Kaiser Permanente Research Affiliates Evidence-based Practice Center (EPC) for the U.S. Preventive Services Task Force (USPSTF) (see the "Availability of Companion

Documents" field).

Data Sources and Searches

EPC staff first searched for systematic reviews published since 2001 by using MEDLINE; the Cochrane Database of Systematic Reviews; the Database of Abstracts of Reviews of Effects; and publications from the Institute of Medicine, the Agency for Healthcare Research and Quality (AHRQ), and the National Institute for Health and Care Excellence. They used the most relevant existing systematic reviews—1 on screening for dementia and 11 on treatment of dementia and mild cognitive impairment (MCI)—to identify primary studies for inclusion and to develop comprehensive search strategies for each question. They searched MEDLINE, PsycINFO, and the Cochrane Central Register of Controlled Trials from the end search dates of existing reviews until 10 December 2012. They supplemented the searches with expert suggestions, reference lists of systematic reviews, and trial registry platforms for ongoing trials.

Study Selection

Two investigators independently reviewed 16,179 abstracts and 1190 articles (Figure 1) against the specified inclusion criteria (see Appendix Table 1 of the systematic review, available at <http://annals.org/article.aspx?articleid=1763246#ta1-6>). They resolved discrepancies through consensus and consultation with a third investigator. They included fair- to good-quality English-language studies of community-dwelling adults that were most applicable to primary care in the United States. For screening questions, they included studies that evaluated any brief screening instrument that could be delivered by a clinician in primary care in 10 minutes or less or self-administered in 20 minutes or less. Screening instruments could be administered to the patient or an informant. For treatment questions, EPC staff included the major pharmacologic and nonpharmacologic interventions intended for use in older adults with MCI or mild to moderate dementia, excluding Parkinson dementia, to approximate persons with "screen-detected" cognitive impairment. They considered any decision-making, patient, or caregiver health outcome. For harms of screening, they considered any study design reporting harms, including psychological harms and those due to labeling or poor adherence to diagnostic follow-up. For harms of treatment, they focused primarily on serious harms that resulted in unexpected medical care, illness, or death for interventions that showed any evidence of benefit.

Number of Source Documents

- Key Question 1: 0 articles (0 studies)
- Key Question 2: 64 articles (55 studies)
- Key Question 3: 2 articles (1 study)
- Key Question 4: 167 articles (131 studies)
- Key Question 5: 78 articles (66 studies)

Methods Used to Assess the Quality and Strength of the Evidence

Expert Consensus

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

At least two reviewers critically appraised all articles that met inclusion criteria using the U.S. Preventive Services Task Force's (USPSTF's) design-specific quality criteria (see Appendix A, Table 3 in the evidence synthesis [see the "Availability of Companion Documents" field]).

Methods Used to Analyze the Evidence

Meta-Analysis

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Note from the National Guideline Clearinghouse (NGC): A systematic evidence review was prepared by the Kaiser Permanente Research Affiliates Evidence-based Practice Center (EPC) for the U.S. Preventive Services Task Force (USPSTF) (see the "Availability of Companion Documents" field).

Data Extraction and Quality Assessment

One investigator extracted data, and a second investigator checked the extraction. Two reviewers independently appraised all articles by using the USPSTF's design-specific quality criteria. They supplemented these criteria with the National Institute for Health and Care Excellence methodology checklists, AMSTAR (A Measurement Tool to Assess Systematic Reviews) for systematic reviews, the Newcastle-Ottawa Scale for observational studies, and QUADAS (Quality Assessment of Diagnostic Accuracy Studies) for studies of diagnostic accuracy. Fair-quality (as opposed to good-quality) studies did not meet at least 1 criterion but had no important limitations that would invalidate the results. The most common limitations in studies excluded because of poor quality were verification bias in diagnostic studies and greater than 40% attrition or inability to assess for criteria due to limited reporting in trials.

Data Synthesis and Analysis

For diagnostic accuracy studies on screening for mild cognitive impairment (MCI) or dementia, the primary outcomes of interest were sensitivity and specificity at a given cut point for the instrument, by instrument type (according to length of administration) and separated by detection of dementia, MCI, or both. EPC staff synthesized and reported the results for the most commonly used cut points, when applicable. They conducted quantitative syntheses of sensitivity and specificity if sufficient data were presented in more than 2 similar studies based on populations, scoring or cut points, and outcomes. EPC staff ran a bivariate model using the "metandi" procedure in Stata 11.2 (StataCorp, College Station, Texas), which models sensitivity and specificity simultaneously, thus accounting for the correlation between these variables.

For treatment trials, EPC staff grouped interventions into 4 broad categories: U.S. Food and Drug Administration (FDA)–approved medications to treat Alzheimer's disease (AD), other medications or dietary supplements, nonpharmacologic interventions for caregiver–patient dyads, and nonpharmacologic interventions meant primarily for the patient. They synthesized results within each category and examined results and the association of key study characteristics with results and effect sizes on commonly reported outcomes. Characteristics included age, sex, severity of cognitive impairment of the patient, caregiver hours, setting, country, intervention components, dosing frequency or intensity, length of follow-up, and study quality. Commonly reported outcomes included measures of cognition, global functioning, and physical functioning. For assessment of global cognitive function, the most commonly used measures in the included studies were the Alzheimer's Disease Assessment Scale–Cognitive Subscale (ADAS-cog) and the Mini-Mental State Examination (MMSE). Assessment of global function was not commonly reported except in trials evaluating FDA-approved medications for AD, which used the Clinician Interview–Based Impression of Change Plus Caregiver Input (CIBIC-plus). Global physical functioning was measured by various instruments that captured the patient's ability to complete basic activities of daily living (ADLs) or instrumental activities of daily living (IADLs). The most commonly reported caregiver outcomes were caregiver burden, usually measured with the Zarit Caregiver Burden Interview, and caregiver depression, usually measured with the Center for Epidemiologic Studies Depression Scale.

EPC staff conducted quantitative analyses on important patient outcomes reported in most trials. They analyzed a standardized effect size (Hedge g) based on the differences in change between groups from baseline to follow-up using standard formulas. For global cognitive measures, a change of 4 points or more on the ADAS-cog over 6 months was considered a clinically important improvement in mild to moderate dementia. For standardized effect sizes, standardized mean differences of 0.2 to less than 0.5 were considered small, those 0.5 to less than 0.8 were considered medium, and those 0.8 or greater were considered large. EPC staff used meta-regressions and visual inspection of forest plots to explore heterogeneity of effect sizes. They assessed the presence of statistical heterogeneity among the studies by using standard chi-square tests and estimated the magnitude of heterogeneity using the I^2 statistic. Publication bias was assessed using tests to examine for bias due to small-study effects. They used Stata 11.2 for all statistical analyses.

Methods Used to Formulate the Recommendations

Balance Sheets

Expert Consensus

Description of Methods Used to Formulate the Recommendations

The U.S. Preventive Services Task Force (USPSTF) systematically reviews the evidence concerning both the benefits and harms of widespread implementation of a preventive service. It then assesses the certainty of the evidence and the magnitude of the benefits and harms. On the basis of this assessment, the USPSTF assigns a letter grade to each preventive service signifying its recommendation about provision of the service (see table below). An important, but often challenging, step is determining the balance between benefits and harms to estimate "net benefit" (that is, benefits minus harms).

Table 1. U.S. Preventive Services Task Force Recommendation Grid*

Certainty of Net Benefit	Magnitude of Net Benefit			
	Substantial	Moderate	Small	Zero/Negative
High	A	B	C	D
Moderate	B	B	C	D
Low	Insufficient			

*A, B, C, D, and I (*Insufficient*) represent the letter grades of recommendation or statement of insufficient evidence assigned by the USPSTF after assessing certainty and magnitude of net benefit of the service (see the "Rating Scheme for the Strength of the Recommendations" field).

The overarching question that the USPSTF seeks to answer for every preventive service is whether evidence suggests that provision of the service would improve health outcomes if implemented in a general primary care population. For screening topics, this standard could be met by a large randomized, controlled trial (RCT) in a representative asymptomatic population with follow-up of all members of both the group "invited for screening" and the group "not invited for screening."

Direct RCT evidence about screening is often unavailable, so the USPSTF considers indirect evidence. To guide its selection of indirect evidence, the Task Force constructs a "chain of evidence" within an analytic framework. For each key question, the body of pertinent literature is critically appraised, focusing on the following 6 questions:

1. Do the studies have the appropriate research design to answer the key question(s)?
2. To what extent are the existing studies of high quality? (i.e., what is the internal validity?)
3. To what extent are the results of the studies generalizable to the general U.S. primary care population and situation? (i.e., what is the external validity?)
4. How many studies have been conducted that address the key question(s)? How large are the studies? (i.e., what is the precision of the evidence?)
5. How consistent are the results of the studies?
6. Are there additional factors that assist the USPSTF in drawing conclusions (e.g., presence or absence of dose–response effects, fit within a biologic model)?

The next step in the USPSTF process is to use the evidence from the key questions to assess whether there would be net benefit if the service were implemented. In 2001, the USPSTF published an article that documented its systematic processes of evidence evaluation and recommendation development. At that time, the USPSTF's overall assessment of evidence was described as good, fair, or poor. The USPSTF realized that this rating seemed to apply only to how well studies were conducted and did not fully capture all of the issues that go into an overall assessment of the evidence about net benefit. To avoid confusion, the USPSTF has changed its terminology. Whereas individual study quality will continue to be characterized as good, fair, or poor, the term certainty will now be used to describe the USPSTF's assessment of the overall body of evidence about net benefit of a preventive service and the likelihood that the assessment is correct. Certainty will be determined by considering all 6 questions listed above; the judgment about certainty will be described as high, moderate, or low.

In making its assessment of certainty about net benefit, the evaluation of the evidence from each key question plays a primary role. It is important to note that the USPSTF makes recommendations for real-world medical practice in the United States and must determine to what extent the evidence for each key question—even evidence from screening RCTs or treatment RCTs—can be applied to the general primary care population. Frequently, studies are conducted in highly selected populations under special conditions. The USPSTF must consider differences between the general primary care population and the populations studied in RCTs and make judgments about the likelihood of observing the same effect in actual practice.

It is also important to note that one of the key questions in the analytic framework refers to the potential harms of the preventive service. The USPSTF considers the evidence about the benefits and harms of preventive services separately and equally. Data about harms are often obtained

from observational studies because harms observed in RCTs may not be representative of those found in usual practice and because some harms are not completely measured and reported in RCTs.

Putting the body of evidence for all key questions together as a chain, the USPSTF assesses the certainty of net benefit of a preventive service by asking the 6 major questions listed above. The USPSTF would rate a body of convincing evidence about the benefits of a service that, for example, derives from several RCTs of screening in which the estimate of benefits can be generalized to the general primary care population as "high" certainty (see the "Rating Scheme for the Strength of Recommendations" field). The USPSTF would rate a body of evidence that was not clearly applicable to general practice or has other defects in quality, research design, or consistency of studies as "moderate" certainty. Certainty is "low" when, for example, there are gaps in the evidence linking parts of the analytic framework, when evidence to determine the harms of treatment is unavailable, or when evidence about the benefits of treatment is insufficient. Table 4 in the methodology document listed below (see the "Availability of Companion Documents" field) summarizes the current terminology used by the USPSTF to describe the critical assessment of evidence at all 3 levels: individual studies, key questions, and overall certainty of net benefit of the preventive service.

Sawaya GF et al. Update on the methods of the U.S. Preventive Services Task Force: estimating certainty and magnitude of net benefit. *Ann Intern Med.* 2007;147:871-875. [5 references].

I Statements

For I statements, the USPSTF has a new plan to commission its Evidence-based Practice Centers to collect information in 4 domains pertinent to clinical decisions about prevention and to report this information routinely. This plan is described in the paper: Petitti DB et al. Update on the methods of the U.S. Preventive Services Task Force: insufficient evidence. *Ann Intern Med.* 2009;150:199-205. <http://annals.org/article.aspx?articleid=744255>

The first domain is potential preventable burden of suffering from the condition. When evidence is insufficient, provision of an intervention designed to prevent a serious condition (such as dementia) might be viewed more favorably than provision of a service designed to prevent a condition that does not cause as much suffering (such as rash). The USPSTF recognized that "burden of suffering" is subjective and involves judgment. In clinical settings, it should be informed by patient values and concerns.

The second domain is potential harm of the intervention. When evidence is insufficient, an intervention with a large potential for harm (such as major surgery) might be viewed less favorably than an intervention with a small potential for harm (such as advice to watch less television). The USPSTF again acknowledges the subjective nature and the difficulty of assessing potential harms: for example, how bad is a "mild" stroke?

The third domain is cost—not just monetary cost, but opportunity cost, in particular the amount of time a provider spends to provide the service, the amount of time the patient spends to partake of it, and the benefits that might derive from alternative uses of the time or money for patients, clinicians, or systems. Consideration of clinician time is especially important for preventive services with only insufficient evidence because providing them could "crowd out" provision of preventive services with proven value, services for conditions that require immediate action, or services more desired by the patient. For example, a decision to routinely inspect the skin could take up the time available to discuss smoking cessation, or to address an acute problem or a minor injury that the patient considers important.

The fourth domain is current practice. This domain was chosen because it is important to clinicians for at least 2 reasons. Clinicians justifiably fear that not doing something that is done on a widespread basis in the community may lead to litigation. More important, addressing patient expectations is a crucial part of the clinician–patient relationship in terms of building trust and developing a collaborative therapeutic relationship. The consequences of not providing a service that is neither widely available nor widely used are less serious than not providing a service accepted by the medical profession and thus expected by patients. Furthermore, ingrained care practices are difficult to change, and efforts should preferentially be directed to changing those practices for which the evidence to support change is compelling.

Although the reviewers did not explicitly recognize it when these domains were chosen, the domains all involve consideration of the potential consequences—for patients, clinicians, and systems—of providing or not providing a service. Others writing about medical decision making in the face of uncertainty have suggested that the consequences of action or inaction should play a prominent role in decisions.

Rating Scheme for the Strength of the Recommendations

What the U.S. Preventive Services Task Force (USPSTF) Grades Mean and Suggestions for Practice

Grade	Grade Definitions	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty	Offer/provide this service.

Grade	Grade Definitions	Suggestions for Practice
B	that the net benefit is substantial. The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer/provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer/provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be measured.	Read the "Clinical Considerations" section of the USPSTF Recommendation Statement (see the "Major Recommendations" field). If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

USPSTF Levels of Certainty Regarding Net Benefit

Definition: The USPSTF defines *certainty* as "likelihood that the USPSTF assessment of the net benefit of a preventive service is correct." The net benefit is defined as benefit minus harm of the preventive service as implemented in a general, primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

Level of Certainty	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	<p>The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by factors such as:</p> <ul style="list-style-type: none"> • The number, size, or quality of individual studies • Inconsistency of findings across individual studies • Limited generalizability of findings to routine primary care practice • Lack of coherence in the chain of evidence <p>As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.</p>
Low	<p>The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of:</p> <ul style="list-style-type: none"> • The limited number or size of studies • Important flaws in study design or methods • Inconsistency of findings across individual studies • Gaps in the chain of evidence • Findings not generalizable to routine primary care practice • A lack of information on important health outcomes <p>More information may allow an estimation of effects on health outcomes.</p>

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Comparison with Guidelines from Other Groups

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

Peer Review. Before the U.S. Preventive Services Task Force (USPSTF) makes its final determinations about recommendations on a given preventive service, the Evidence-based Practice Center and the Agency for Healthcare Research and Quality send a draft evidence review to 4 to 6 external experts and to Federal agencies and professional and disease-based health organizations with interests in the topic. The experts are asked to examine the review critically for accuracy and completeness and to respond to a series of specific questions about the document. After assembling these external review comments and documenting the proposed response to key comments, the topic team presents this information to the USPSTF in memo form. In this way, the USPSTF can consider these external comments before it votes on its recommendations about the service. Draft recommendation statements are then circulated for comment among reviewers representing professional societies, voluntary organizations, and Federal agencies, as well as posted on the USPSTF Web site for public comment. These comments are discussed before the final recommendations are confirmed.

Response to Public Comment. A draft version of this recommendation statement was posted for public comment on the USPSTF Web site from 5 November to 2 December 2013. Several comments agreed with the insufficiency of the evidence. A few comments disagreed with the recommendation, and some comments expressed confusion about the meaning of an I statement and how it may affect early detection. The recommendation contains suggestions for practice regarding the I statement and notes that, although evidence on routine screening is insufficient, there may be important reasons to identify early cognitive impairment in specific circumstances. Other comments requested clarification on the meaning of screening and for whom the recommendation is intended; in response, information was added to the recommendation. Some comments provided evidence on additional risk factors for cognitive impairment and suggested additional research gaps; these were added to the Clinical Considerations section. The importance of vascular causes of dementia was mentioned in a few comments, and information on USPSTF recommendations related to vascular risk factors was added.

Comparison with Guidelines from Other Groups. Recommendations for screening from the following groups were discussed: Medicare and the Alzheimer's Association.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of evidence supporting the recommendations is not specifically stated.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Benefits of Detection and Early Intervention

The U.S. Preventive Services Task Force (USPSTF) found inadequate direct evidence on the benefits of screening for cognitive impairment. Evidence shows that several drug therapies and nonpharmacologic interventions have a small effect on cognitive function measures in the short term for patients with mild to moderate dementia, but the magnitude of the clinically relevant benefit is uncertain. The USPSTF found adequate evidence that interventions targeted to caregivers have a small effect on measures of caregiver burden and depression, but the magnitude of the clinically

relevant benefit is uncertain. The USPSTF found no published evidence on the effect of screening on decision making or planning by patients, clinicians, or caregivers.

Potential Harms

Harms of Detection and Early Intervention or Treatment

The U.S. Preventive Services Task Force (USPSTF) found inadequate evidence on the harms of screening for cognitive impairment and of nonpharmacologic interventions. It found adequate evidence that acetylcholinesterase inhibitors (AChEIs) are associated with adverse effects, some of which are serious, including central nervous system disturbances and arrhythmia. Gastrointestinal symptoms are also common.

Qualifying Statements

Qualifying Statements

- The U.S. Preventive Services Task Force (USPSTF) makes recommendations about the effectiveness of specific clinical preventive services for patients without related signs or symptoms.
- It bases its recommendations on the evidence of both the benefits and harms of the service and an assessment of the balance. The USPSTF does not consider the costs of providing a service in this assessment.
- The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision making to the specific patient or situation. Similarly, the USPSTF notes that policy and coverage decisions involve considerations in addition to the evidence of clinical benefits and harms.
- Recommendations made by the USPSTF are independent of the U.S. government. They should not be construed as an official position of the Agency for Healthcare Research and Quality or the U.S. Department of Health and Human Services.

Implementation of the Guideline

Description of Implementation Strategy

The experiences of the first and second U.S. Preventive Services Task Force (USPSTF), as well as that of other evidence-based guideline efforts, have highlighted the importance of identifying effective ways to implement clinical recommendations. Practice guidelines are relatively weak tools for changing clinical practice when used in isolation. To effect change, guidelines must be coupled with strategies to improve their acceptance and feasibility. Such strategies include enlisting the support of local opinion leaders, using reminder systems for clinicians and patients, adopting standing orders, and audit and feedback of information to clinicians about their compliance with recommended practice.

In the case of preventive services guidelines, implementation needs to go beyond traditional dissemination and promotion efforts to recognize the added patient and clinician barriers that affect preventive care. These include clinicians' ambivalence about whether preventive medicine is part of their job, the psychological and practical challenges that patients face in changing behaviors, lack of access to health care or of insurance coverage for preventive services for some patients, competing pressures within the context of shorter office visits, and the lack of organized systems in most practices to ensure the delivery of recommended preventive care.

Dissemination strategies have changed dramatically in this age of electronic information. While recognizing the continuing value of journals and other print formats for dissemination, the USPSTF will make all its products available through its [Web site](#) . The combination of electronic access and extensive material in the public domain should make it easier for a broad audience of users to access USPSTF materials and adapt them for their local needs. Online access to USPSTF products also opens up new possibilities for the appearance of the annual, pocket-size *Guide to Clinical Preventive Services*.

To be successful, approaches for implementing prevention have to be tailored to the local level and deal with the specific barriers at a given site, typically requiring the redesign of systems of care. Such a systems approach to prevention has had notable success in established staff-model health maintenance organizations, by addressing organization of care, emphasizing a philosophy of prevention, and altering the training and incentives for clinicians. Staff-model plans also benefit from integrated information systems that can track the use of needed services and generate automatic reminders aimed at patients and clinicians, some of the most consistently successful interventions. Information systems remain a major

challenge for individual clinicians' offices, however, as well as for looser affiliations of practices in network-model managed care and independent practice associations, where data on patient visits, referrals, and test results are not always centralized.

Implementation Tools

Foreign Language Translations

Mobile Device Resources

Patient Resources

Pocket Guide/Reference Cards

Staff Training/Competency Material

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

U.S. Preventive Services Task Force. Screening for cognitive impairment in older adults: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med.* 2014 Jun 3;160(11):791-7. [24 references] [PubMed](#)

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

1996 (revised 2014 Jun 3)

Guideline Developer(s)

U.S. Preventive Services Task Force - Independent Expert Panel

Guideline Developer Comment

The U.S. Preventive Services Task Force (USPSTF) is a federally-appointed panel of independent experts. Conclusions of the USPSTF do not necessarily reflect policy of the U.S. Department of Health and Human Services or its agencies.

Source(s) of Funding

The USPSTF is an independent, voluntary body. The U.S. Congress mandates that the Agency for Healthcare Research and Quality support the operations of the USPSTF.

Guideline Committee

U.S. Preventive Services Task Force (USPSTF)

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**Members of the USPSTF at the time this recommendation was finalized. For a list of current Task Force members, go to <http://www.uspreventiveservicestaskforce.org/Page/Name/our-members> .*

Financial Disclosures/Conflicts of Interest

The U.S. Preventive Services Task Force (USPSTF) has an explicit policy concerning conflict of interest. All members disclose at each meeting if they have a significant financial, professional/business, or intellectual conflict for each topic being discussed. USPSTF members with conflicts may be recused from discussing or voting on recommendations about the topic in question.

Disclosures: Authors followed the policy regarding conflicts of interest described at <http://www.uspreventiveservicestaskforce.org/Page/Name/procedure-manual---section-1> . Disclosures can be viewed at www.acponline.org/authors/icmje/ConflictOfInterestForms.do?msNum=M14-0496 .

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: U.S. Preventive Services Task Force. Screening for dementia: recommendations and rationale. *Ann Intern Med* 2003;138(11):925-6.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Electronic copies: Available from the [Annals of Internal Medicine Web site](#) .

Availability of Companion Documents

The following are available:

Evidence Reviews:

- Lin JS, O'Connor E, Rossom RC, Perdue LA, Eckstrom E. Screening for cognitive impairment in older adults: a systematic review for the U.S. Preventive Services Task Force. *Ann Intern Med*. 2013;159:601-612.
- Lin JS, O'Connor E, Rossom RC, Perdue LA, Burda BU, Thompson M, Eckstrom E. Screening for cognitive impairment in older adults: an evidence update for the U.S. Preventive Services Task Force. Evidence Report No. 107. AHRQ Publication No. 14-05198-EF-1. Rockville (MD): Agency for Healthcare Research and Quality; 2013. 411 p.

Electronic copies: Available from the [U.S. Preventive Services Task Force \(USPSTF\) Web site](#) .

Background Articles:

- Barton MB et al. How to read the new recommendation statement: methods update from the U.S. Preventive Services Task Force. *Ann Intern Med* 2007;147:123-127.
- Guirguis-Blake J et al. Current processes of the U.S. Preventive Services Task Force: refining evidence-based recommendation development. *Ann Intern Med* 2007;147:117-122.
- Sawaya GF et al. Update on the methods of the U.S. Preventive Services Task Force: estimating certainty and magnitude of net benefit. *Ann Intern Med* 2007;147:871-875.
- Petitti DB et al. Update on the methods of the U.S. Preventive Services Task Force: insufficient evidence. *Ann Intern Med*. 2009;150:199-205.

Electronic copies: Available from the [USPSTF Web site](#) .

The following are also available:

- Screening for cognitive impairment in older adults. Clinical summary of U.S. Preventive Services Task Force recommendations. 2014. 1 p. Electronic copies: Available from the [USPSTF Web site](#) .
- The guide to clinical preventive services, 2014. Recommendations of the U.S. Preventive Services Task Force. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2014. 144 p. Electronic copies: Available from the [Agency for Healthcare Research and Quality \(AHRQ\) Web site](#) . See the related QualityTool summary on the [Health Care Innovations Exchange Web site](#) .

The [Electronic Preventive Services Selector \(ePSS\)](#) is an application designed to provide primary care clinicians and health care teams timely decision support regarding appropriate screening, counseling, and preventive services for their patients. It is based on the current, evidence-based recommendations of the USPSTF and can be searched by specific patient characteristics, such as age, sex, and selected behavioral risk factors.

Patient Resources

The following are available:

- Screening for cognitive impairment in older adults. Understanding task force recommendations. Consumer fact sheet. Rockville (MD): U.S. Preventive Services Task Force. 2014 Mar. 3 p. Electronic copies: Available from the [U.S. Preventive Services Task Force \(USPSTF\) Web site](#) .
- Screening for cognitive impairment in older adults: U.S. Preventive Services Task Force recommendation statement. Summaries for patients. *Ann Intern Med* 2014;160(11):I-20. Electronic copies: Available from the [Annals of Internal Medicine Web site](#) .
- Women: stay healthy at 50+. 2014 update. AHRQ Pub. No. 14-IP002-A. Rockville (MD): Agency for Healthcare Research and Quality. 2014 Mar. 5 p. Electronic copies: Available in [English](#) and [Spanish](#) from the AHRQ Web site.
- Men: stay healthy at 50+. 2014 update. AHRQ Pub. No. 14-IP009-A. Rockville (MD): Agency for Healthcare Research and Quality.

2014 Mar. 5 p. Electronic copies: Available in [English](#) and [Spanish](#) from the AHRQ Web site.

Print copies: Available in English and Spanish from the Agency for Healthcare Research and Quality (AHRQ) Publications Clearinghouse. For more information, go to <http://www.ahrq.gov/research/publications/index.html> or call 1-800-358-9295  (U.S. only).

Myhealthfinder is a tool that provides personalized recommendations for clinical preventive services specific to the user's age, gender, and pregnancy status. It features evidence-based recommendations from the USPSTF and is available at www.healthfinder.gov .

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

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